FOR THE MINE CLEARANCE LAUNCHER MK 154 NSN 1055-01-226-6338 Inspect Repair Only As Necessary

(IROAN)
B1315

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STATEMENT OF WORK FOR THE MINE CLEARANCE LAUNCHER MK 154 NSN 1055-01-226-6338 Inspect Repair Only As Necessary (IROAN)

- 1.0 <u>SCOPE</u>. This Statement of Work (SOW) establishes and sets forth tasks and identifies the work efforts that shall be performed by the Contractor in the IROAN effort of the **Mine Clearance Launcher (MCL) MK 154**, hereafter referred to as the **MK 154**. This document contains requirements to restore the **MK 154** to Condition Code "A." "Condition Code A" is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned materiel which is serviceable and issuable to all customers without limitation or restriction, including materiel with more than 6 months shelf-life remaining." National Stock Number (NSN) **1055-01-226-6338** shall be known as the **MK 154**.
- 1.1 <u>Background</u>. IROAN is defined as "That maintenance technique which determines the minimum repairs necessary to restore equipment components or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement."
- 2.0 <u>APPLICABLE DOCUMENTS</u>. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto which is in effect on the date of solicitation. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirement.

2.1 MILITARY SPECIFICATIONS

MIL-C-46168 - Coating, Aliphatic Polyurethane, Chemical Agent

Resistant

MIL-C-53039 - Coating, Aliphatic Polyurethane, Single

Component, Chemical Agent Resistant

2.2 MILITARY STANDARDS

MIL-STD-129 - DoD Standard Practice for Military Marking

MIL-STD-130 - Identification Marking of US Military Property

MIL-STD-461 - Requirements for the control of Electromagnetic

Interference Emission and Susceptibility

2.3 OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS

DOD 4000.25-1-M - MILSTRIP Manual

	DOD 4160.21-M-1	-	Defense Materiel Disposition Manual
	NAVICPINST 4491.2A	-	Requisitioning of Contractor Furnished Material From The Federal Supply System
	SL-3-09962A	-	Launcher, Mine Clearance MK 154 Mod 0
	TM 09962A-13&P/2	-	Mark 1 Mod 0 Mine Clearance System
	TI-09962A-35/1	-	Fabrication and Installation of Electrical Connector Guard for the Launcher, Mine Clearance MK 154
	TM 3080-12	-	Corrosion Prevention and Control for Marine Corps Equipment.
	TM 3080-50	-	Corrosion Control Procedures Depot Maintenance Activities for Marine Corps Equipment
	TM 4700-15/1H	-	Ground Equipment Record Procedures
	TM 4750-15/1	-	Painting and Registration Marking for Marine Corps Combat and Tactical Equipment
	TM 4750-15/2	-	Camouflage Paint Patterns
	835028A0000	-	Mine Clearance Launcher, MK 154, Marine Corps Engineering Drawing
	835028B0000	-	Container Assembly for MK 154, Marine Corps Engineering Drawing
	Military Handbooks (For Gui	dance)	
	MIL-HDBK-61	-	Configuration Management Guidance
2.4	<u>Industry Standards</u>		
	ANSI/ISO/ASQC Q9002	-1994	- Quality Systems-Model for Quality Assurance in Production, Installation, and Servicing
	ASTM D 3951-98	-	Standard Practice for Commercial Packaging
	Industry Standards (For Guid	ance)	
	ANSI/EIA-649	-	National Consensus Standard for Configuration Management

Copies of Military Standards and Specifications are available from the DOD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2179 or DSN 442-2179, or http://www.dodssp.daps.mil. Copies of other government documents and publications required by contractors in connection with specific SOW requirements shall be obtained through the contracting officer: Commander, Marine Corps Logistics Bases, (Code 891) Attn: Contracting Officer, 814 Radford Blvd., Albany, Georgia 31704-1128, commercial telephone number (229) 639-6753 or DSN 567-6753. Copies of engineering drawings, if applicable, shall be obtained from Life Cycle Management Center, Attn: (Code 851-3), Marine Corps Logistics Bases, 814 Radford Blvd., Suite 20320, Albany, Georgia 31704-0320, commercial telephone number (229) 639-6410 or DSN 567-6410.

3.0 REQUIREMENTS

- 3.1 General Tasks. In fulfilling the specified requirements, the Contractor shall:
- a. Provide materials, labor, facilities, missing parts, and repair parts necessary to inspect, diagnose, restore, and test the **MK 154**. Upon completion of IROAN, repaired equipment shall be Condition Code "A".
- b. Provide all tools and test equipment required to test, inspect, repair, and calibrate the MK 154 .
- c. Conduct in-process and final on-site testing for witness by an MCLB (Code 837-1), Albany, representative.
- d. Be responsible for all structural, electrical and mechanical requirements associated with the restoration of the MK 154.
- 3.2 Detail Tasks. The following tasks describe the different phases for IROAN of the MK 154.
- 3.2.1 <u>Phase I Pre-induction</u>. The contractor shall perform a pre-induction inspection analysis for each **MK 154** using the Contractor's diagnosis, inspection and testing techniques to determine extent of work and parts required. This inspection shall included all items associated with the **MK 154** as found in SL-3-09962A, TM 09962A-13&P/2, and TI-09962A-35/1. These findings shall be annotated on a Pre-Induction Check List (Appendix A) and shall be provided to the government in accordance with Paragraph 4.0 of this SOW.
- 3.2.2 Phase II IROAN. After pre-induction tests and inspections have been completed, repair of the MK 154 shall be accomplished by the contractor in accordance with this SOW. Deficiencies noted on the Pre-Induction Checklist, (Appendix A), during Phase I shall be repaired/replaced. The contractor shall use the "List of Defective Parts and Assemblies (Appendix B)" to list all defective parts and assemblies. The contractor shall also use the "List of Repair Parts and Assemblies Required for Repairs (Appendix C)", to report the parts used on the repaired MK 154. Components or assemblies shall not be disassembled for replacement of mandatory parts unless that part has failed, or the component assembly wherein the part is located is disassembled for repair.

- a. Pre-Induction Checklist Information recorded on the Pre-Induction Checklist (Appendix A) shall be used as a guide to repair the **MK 154** system in accordance with this SOW.
- b. Technical Instruction (TI) All TI's not previously applied to the **MK 154** shall be applied during the IROAN and shall be annotated on Equipment Record Jacket in accordance with TM 4700-15/1H.
 - c. Corrosion For corrosion prevention and treatment use TM 3080-12 and TM 3080-50.
 - d. Fluid Leaks The following shall be used as a guide in determining degree of fluid loss:
- (1) Class I Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
- (2) Class II Leakage of fluid great enough to form drops, but not enough to cause drops to fall from the item being checked/inspected.
- (3) Class III Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

NOTE:

A class I leak, except in fuel or brake systems, is an acceptable condition at any time and does not require corrective action.

- e. Belts Replace all.
- f. Data Plates All required data plates and decals shall be in place and shall be legible. Each repaired **MK 154** shall have an IROAN data plate affixed to the main unit in close proximity to the existing data plate. The data plate shall meet the requirements of MIL-STD-130 and TM 4750-15/1 and shall contain the Equipment Serial Number, date of IROAN, Date of SOW, SOW number, and Company name of contractor completing work.
- g. Painting/Coating (Exterior/Interior) If painting/coating is required, the **MK 154** shall be cleaned in accordance with TM 3080-50, Chapter 4, and coated with Aliphatic Polyurethane Coating, in accordance with MIL-C-46168 or MIL-C-53039 using TM 4750-15/2 as pattern guidance if required.
- h. Demilitarization All end items that are identified as non-repairable and require demilitarization codes, shall be reported to the Marine Corps Logistics Bases representatives Code 837-1, who will provide disposition instructions in accordance with DOD 4160.21-M-1.
- i. Electromagnetic Emission All requirements pertaining to control of electromagnetic interference, emission and susceptibility shall be in accordance with MIL-STD-461.
 - j. Hardware

- (1) Replace broken, unserviceable and/or missing hardware including nuts, bolts, screws, washers, turnlock fasteners, mandatory, safety, and one-time use items, etc., in accordance with TM 09962A-13&P/2. Unserviceable would include any of the above that failed to function properly.
- (2) Ensure proper hardware locking devices are present and operational on all moving mechanical assemblies.
- (3) Hardware normally supplied with commercial parts shall be used unless specifically prohibited.
- k. Hoses All hoses and fittings shall be visually inspected for damage or deterioration. Any hose showing signs of leakage, kinking or separation of outer coating shall be replaced. This inspection shall be performed during the Operational Test Inspection (OTI) of the **MK 154**.
- 1. Cable Assemblies All cables and cable connections shall be tested and visually inspected for damage or corrosion. Any cable or cable connector showing signs of damage, corrosion or separation of outer coating shall be repaired/replaced and tested with its respective component/assembly to assure satisfactory compliance with all operational tests.
 - m. Filters Replace all.

3.2.3 Phase III - Inspection, Testing and Acceptance

- a. The contractor shall conduct Inspection, Testing and Acceptance of the **MK 154** in accordance with TM 09962A-13&P/2.
- b. The Contractor shall be responsible for conducting required tests and shall ensure all necessary personnel are available to complete the final acceptance. Acceptance tests shall be held at the Contractor Facility. MCLB (Code 837-1), Albany, Georgia, representatives shall be given a minimum of two weeks notice prior to beginning acceptance testing. The test area shall be cleared of all equipment parts, components, etc., not required for the test.
- c. The Contractor shall be responsible for correcting any deficiencies identified during inspection/testing. MCLB (Code 837-1), Albany, Georgia, representatives may require the Contractor to repeat tests or portions thereof, if the original tests fail to demonstrate compliance with this SOW.
- d. Acceptance testing/Operational Tests on all **MK 154** repaired under the provisions of this SOW shall be accomplished, by the contractor, in accordance with TM 09962A-13&P/2. Operational Tests are to be conducted on each **MK 154** upon completion of repairs and prior to the equipment being returned to stock, to insure the unit will perform as required.
- 3.2.4 Phase IV Packaging, Handling, Storage, and Transportation (PHS&T).

- a. The Contractor shall be responsible for preservation and packaging of item(s) being repaired under the terms of this statement of work. All items shall be in accordance with the best commercial practices of ASTM D 3951-98.
 - b. Marking shall be in accordance with MIL-STD-129.
- c. The Marine Corps will provide the contractor with the shipping address(es) for delivery of the repaired equipment. The contractor shall be responsible for arranging for shipment to the predesignated site(s). The Marine Corps will be responsible for transportation costs associated with shipping the subject equipment to and from the contractor.

3.3 Configuration Management

3.3.1 Configuration Status Accounting (CSA).

- a. The contractor shall record and submit data on retrofit accomplished during Phase II. Any approved Modifications Instructions (MIs) or Engineering Change Proposals (ECPs) not previously applied shall be incorporated during Phase II of the IROAN process.
- b. The Contractor shall determine the application status of approved configuration changes by visual inspections to the extent possible. The government will identify the configuration changes to be inspected by furnishing a Configuration Inspection Checklist to the Contractor. The Contractor shall use one checklist per **MK 154** to record the inspection findings along with other required data.
- c. The Contractor shall record serial numbers of the assemblies listed on the Configuration Inspection Checklist. The Contractor shall also record the information on the Equipment Record Jacket in accordance with TM 4700-15/1H
- 3.3.2 Configuration Control. The contractor shall apply configuration control procedures to established configuration items. The baseline configuration for the MK 154 has been established by Marine Corps Drawing numbers 835028A0000 for the Mine Clearance Launcher and 835028B0000 for the container and applicable MIs and ECPs. The contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization. If it is necessary to temporarily depart from the authorized configuration, the contractor shall prepare and submit a Request for Deviation. MIL-HDBK-61 (paragraph 4.3 and Table 4-9) and ANSI/EIA-649 (paragraph 5.3.4) provide guidance for preparing this configuration control document.

3.4 Quality Assurance Provisions

The Contractor shall provide and maintain a Quality System that as minimum, adheres to the requirements of ANSI/ISO/ASQC Q9002 1994 Quality Systems-Model for Quality Assurance in Production, Installation, and Servicing.

3.5 Acceptance.

The performance of the Contractor and the quality of work delivered, including all equipment furnished and documentation written or compiled, shall be subject to in-process review and inspection during performance. Inspection may be accomplished in-plant or at any work site or location, and Marine Corps (MCLBA, Code 837-1) representatives shall be permitted to observe the work or to conduct inspection at all reasonable hours. Final inspection and acceptance testing shall be conducted at the Contractor Facility. Final acceptance shall be conducted on 100 percent of items to verify that the units meet all requirements.

3.6 Rejection

Failure to comply with any of the specified requirements listed herein shall be reason for rejection by MCLB (Code 837-1), Albany, representative. The Contractor shall, at no additional cost to MCLB, Albany, Georgia, provide the following:

- a. Develop an approach for modification or correction of all deficiencies.
- b. Upon approval of a documented approach, the Contractor shall correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures is demonstrated.
- 3.7 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM) GFE is government owned equipment authorized by contract for use by a commercial/Government contractor. It is neither consumed during production nor incorporated into any product. GFM is materiel furnished to a contractor that will be consumed during the course of production or incorporated into product being manufactured/remanufactured under a contract/statement of work. In the event the Marine Corps does have GFE/GFM requirements the Management Control Activity (MCA/Code 827-2), Marine Corps Logistics Bases, Albany, Georgia, will coordinate required GFE and will maintain a central control on Marine Corps assets in the Contractor's possession. The MCA will forward a GFE Accountability agreement to the Contractor Facility for signature to establish a chain of custody and property responsibilities for Marine Corps assets. The Contractor shall report receipt of all GFM and report consumption of GFM to the MCA.
- 3.8 <u>Contractor Furnished Materiel (CFM)</u>. The Marine Corps has adopted the Navy's procedures regarding Contractor Furnished Materiel (NAVICPINST 4491.2A). In the event that Contractor Furnished Materiel is required for repair parts, the contractor shall requisition through the DoD Supply System. DOD 4000.25-1-M, (MILSTRIP) Chapter 11 authorizes contractors to requisition through the DoD Supply System.

4.0 REPORTS

- 4.1 <u>Repairable Item Inspection Report</u>. The Contractor shall provide a Repairable Item Inspection Report for each **MK 154.** The report shall be identified by United States Marine Corps Serial Number.
- 4.2 <u>Monthly Progress Reports</u>. The Contractor shall provide Monthly Progress Reports summarizing the progress and status of the IROAN Program.

4.3 <u>Pre-Induction Checklist</u>. The Contractor shall complete the, Pre-Induction Inspection Checklist (Appendix A), List of Defective Parts and Assemblies (Appendix B), List of Repair Parts and Assemblies Required for Repairs (Appendix C), for each **MK 154** repaired. These documents shall be available during final acceptance testing. One copy of each document shall be provided to MCLB, Albany, Georgia, Code 837-1, 30 days after final acceptance of each **MK 154** in PDF Format Media.

The inspection checklist shall contain, but not be limited to the following:

- (1) **MK 154** serial number. Appendix A
- (2) Condition Code of **MK 154** at receipt. Appendix A
- (3) Results of operational test. Appendix A
- (4) List of defective parts and assemblies. Appendix B
- (5) List of repair parts and assemblies required for repairs. Appendix C
- (6) Corrosion prevention methods that shall be used. Appendix A

Serial number:	Conditio	n Code	e at receipt:
Results of operational test:			-
List of defective parts and assemblies.			
List of repair parts and assemblies requ		irs. Ap _l	pendix C
Corrosion prevention methods that sha	ll be used.		
			e parts per TM 09962A-13&P/2. Visually
check components for leaks, damage, l			
allowed unless the component is determ	nined to be de	efective	2.
COMPONENT:	Pass	Fail	Remarks:
Mast Assy			
External-Actuator Cover			
Actuator Arm Lever			
Housing to Actuator Assy			
Hose Assy, Starboard			
Starboard Actuator Manifold			
Starboard Actuator Assy			
Housing-Actuator Hydraulic			
Hose Assy, Port			
Housing - Actuator Hydraulic			
System, Port			
Port Actuator Manifold			
Port Actuator Assy			
Starboard/Port Hinge Arm	_		
Starboard Door Assy			
Door Seals			

APPENDIX A

Door Latch Rod, Starboard Door			
Port Door Assy			
Wiring Harness W16			
Platform, Equipped for Access			
COMPONENT:			
Launcher Cylinder Hydraulic Hose Assy	Pass	Fail	
Launch Cylinder Hose Assys			Remarks:
Launcher Cylinder			
Launcher Cylinder Swivel Joint			
Elevation Cylinder Hose Assys			
Elevation Cylinder Swivel Joint & Elbows			
Elevation Cylinder Assy			
Elevation Cylinder Manifold			
Elevation Cylinder			
Turnbuckle Connecting Rod			
Elevation Cylinder Linkage Adjustment			
Connecting Rod			
Pivot Pin			
Pivot Bearings			
Center Sheath			
Shield			
Launcher Platform Rail			
Travel Lock Assy			
Pivot Assy			
Bumper			
Stop			
-			
Bracket, Connecting Rod Mercury Switch Box			
Pendulum Box Assy			
Rockets Power Distribution Box			
Rocker Arm			
Support Arm			
Arm Sheath			
Port/Starboard Intermediate Sheath			
Sequence Lock Manifold			
Sequence Lock Manifold Hydraulic Assys			
Support Arm Tube Assys			
Elbow			
Elbow Bracket			
Three-Hole Bulkhead			
Tube Angle Mounting			
Launcher Housing Tube Assy			
Junction Box A			
Junction Box B			
Limit Switch			
Limit Switch Arm Bracket			
Wiring Harness W15			
Pivot Bracket			
Spring			
Test Plugs			

Nipple			
Coupler			
Lower Seal			
COMPONENT:			
Sheath			
Intermediate Housing Sheath			
Port Housing Guard	Pass	Fail	
Starboard Housing Guard			
Forward Port Housing Guard			
Aft Port Housing Guard			
Forward Starboard Housing Guard			
Aft Starboard Housing Guard			
Port/Starboard Bar			Remarks:
Swivel Elbow (Port H2)			
Tie-Down and Adapter Assy			
Tie-Down Adapter			
Tie-Down Assy			
Aft Wall Guard			
Aft Guard Assy			
Aft Port Guard			
Aft Starboard Guard			
Forward Guard Assy			
Cable Guide			
Starboard Cable Guide			
Aft Port Cable Guide			
Lower Engine Access Cover Latch			
Upper Engine Access Cover Striker			
Rail			
Center Channel Assy			
Aft Pallet Rail Tie-Down Bracket			
Port/Starboard Ramp			
Rear Pallet Assy			
Wear Plate			
Quick Release Pins			
Starboard Ramp Crossmember			
Ramp Wear Plates			
Aft Pallet			
Forward Pallet Assy			
Housing to Forward Pallet Hose Assys			
Capstan Hydraulic Hose Assy			
Forward Pallet Rail Tie-Down Bracket			
Quick Disconnect Coupler Fitting			
Power Distribution Box Assy			
Quick Disconnect Nipple Fitting			
200A Circuit Breaker			
2A Circuit Breaker			
10A Circuit Breaker			
200A Relay			
10A Relay			
Terminal Block			

Indicator Light Assy			
Toggle Switch			
COMPONENT:			
Slave Plug			
Capstan with Hydraulic Motor Assy			
Capstan Drum			
Reduction Gearbox			
Reduction Gearbox Lubricating Oils	Pass	Fail	
Reduction Gearbox Oil Change	1 433	1 411	
Hydraulic Filter Change			
Capstan Hydraulic Motor			
Hydraulic Power Unit			
Manual Hydraulic Pump			-
Manual Hydraulic Pump Handle			
Electric Motor/Hydraulic Pump			
Electric Motor/Hydraulic Pump			Remarks:
Control Manifold			Tomaria.
Reservoir Assy			-
Sight Glass			
Relief Valve			
Pressure Gauge			
Manual Pump Outlet Tube			
Manual Pump Inlet Tube			
Clip Spring			
Hydraulic Pump Inlet Tube			
Hydraulic Pump Outlet Tube			
Wiring Harness W12			-
Wiring Harness W13			
Wiring Harness W14 Arm Switch			-
Control Box			
Control Box & Mounting			
Brackets Assy			-
Brackets			
Lamps			
Selector Knob			
Toggle Switch Guard			
Receptacles			
Receptacle Connections			
10A Relay			
Relay Connections			
Filters			
Filter Connections			
System Power Switch			
System Power Switch Connections			
Panel Light			
Panel Light Connections			
Push Switches			
Push Switch Connections			
Rotary Switch			

Rotary Switch Connections				
COMPONENT:				
Launch Angle Indicator				_
Circuit Board Assy				
Circuit Board Assembly Connections				
Indicator Light				
Indicator Light Connections				
Raise/Lower Switch				
Raise/Lower Switch Connections	Pass	$\overline{\text{Fail}}$		
Electric Wire	1 400	1 411		
Wire Connections				
Container, Top				
Container, Bottom				
Gasket, Container Joint				
				Remar
			ks:	
				_

COMPONENT:	REMARKS:
Mast Assy	
External-Actuator Cover	
Actuator Arm Lever	
Housing to Actuator Assy	
Hose Assy, Starboard	
Starboard Actuator Manifold	
Starboard Actuator Assy	
Housing-Actuator Hydraulic Hse	
Assy, Port	
Housing - Actuator Hydraulic	
System, Port	
Port Actuator Manifold	
Port Actuator Assy	
Starboard/Port Hinge Arm	
Starboard Door Assy	
Door Seals	
Door Latch Rod, Starboard Door	
Port Door Assy	
Wiring Harness W16	
Platform, Equipped for Access	
Launcher Cylinder Hydraulic Hose	
Assy	
Launch Cylinder Hose Assys	
Launcher Cylinder	
Launcher Cylinder Swivel Joint	
Elevation Cylinder Hose Assys	
Elevation Cylinder Swivel Joint &	
Elbows	
Elevation Cylinder Assy	
Elevation Cylinder Manifold	
Elevation Cylinder	
Turnbuckle Connecting Rod	
Elevation Cylinder Linkage	
Adjustment	
Connecting Rod	
Pivot Pin	
Pivot Bearings	
Center Sheath	
Shield	
Launcher Platform Rail	
Travel Lock Assy	
Pivot Assy	
Bumper	
Stop	
Bracket, Connecting Rod	
Mercury Switch Box	
COMPONENT:	

Pendulum Box Assy	
Rockets Power Distribution Box	REMARKS:
Rocker Arm	
Support Arm	
Arm Sheath Port/Starboard	
Intermediate Sheath	
Sequence Lock Manifold	
Sequence Lck Manifold Hydraulic	
Asy	
Support Arm Tube Assys	
Elbow	
Elbow Bracket	
Three-Hole Bulkhead Tube	
Angle Mounting	
Launcher Housing	
Tube Assys	
Junction Box A	
Junction Box B	
Limit Switch	
Limit Switch Arm Bracket Wiring	
Harness W15	
Pivot Bracket	
Spring	
Test Plugs	
Nipple	
Coupler	
Lower Seal	
Sheath	
Intermediate Housing Sheath	
Port Housing Guard Starboard	
Housing Guard	
Forward Port Housing Guard	
Aft Port Housing Guard	
Forward Starboard Housing Guard	
Aft Starboard Housing Guard	
Port/Starboard Bar	
Swivel Elbow (Port H2)	
Tie-Down and Adapter Assy	
Tie-Down Adapter	
Tie-Down Assy Aft Wall	
Guard Aft Guard Assy Aft Port	
Guard Aft Starboard Guard Forward	
Guard Assy Cable Guide Starboard	
Cable Guide Aft Port Cable Guide	
Lower Engine Access Cover Latch	
Upper Engine Acc Cover Strike Rail	
COMPONENT:	
Center Channel Assy	

Aft Pallet Rail Tie-Down Bracket	
Port/Starboard Ramp	
Rear Pallet Assy	
Wear Plate	REMARKS:
Quick Release Pins	
Starboard Ramp Crossmember	
Ramp Wear Plates	
Aft Pallet	
Forward Pallet Assy	
Housing to Forward Pallet Hose	
Assys	
Capstan Hydraulic Hose Assys	
Forward Pallet Rail Tie-Down	
Bracket	
Quick Disconnect Coupler Fitting	
Power Distribution Box Assy	
· · · · · · · · · · · · · · · · · · ·	
Quick Disconnect Nipple Fitting 200A Circuit Breaker	
2A Circuit Breaker	
10A Circuit Breaker	
200A Relay	
10A Relay	
Terminal Block Indicator Light Assy	
Toggle Switch Slave Plug Capstan	
with Hydraulic Motor Assy Capstan	
Drum Reduction Gearbox	
Reduction Gearbox Lubricating Oils	
Reduction Gearbox Oil Change	
Hydraulic Filter Change	
Capstan Hydraulic Motor	
Hydraulic Power Unit	
Manual Hydraulic Pump	
Manual Hydraulic Pump Handle	
Electric Motor/Hydraulic Pump	
Electric Motor/Hydraulic Pump	
Control Manifold	
Reservoir Assy	
Sight Glass	
Relief Valve	
Pressure Gauge	
Manual Pump Outlet Tube	
Manual Pump Inlet Tube	
Clip Spring	
Hydraulic Pump Inlet Tube	
Hydraulic Pump Outlet Tube	
COMPONENT:	
Wiring Harness W12	
Wiring Harness W13	

Wiring Harness W14	
Arm Switch	
Control Box	
Control Bx & Mounting Brackets	
Assy	
Brackets	REMARKS:
Lamps	
Selector Knob	
Toggle Switch Guard	
Receptacles	
Receptacle Connections	
10A Relay	
Relay Connections	
Filters	
Filter Connections	
System Power Switch	
System Power Switch Connections	
Panel Light	
Panel Light Connections	
Push Switches	
Push Switch Connections	
Rotary Switch	
Rotary Switch Connections	
Launch Angle Indicator	
Circuit Board Assy	
Circuit Board Assy Connections	
Indicator Light	
Indicator Light Connections	
Raise/Lower Switch	
Raise/Lower Switch Connections	
Electric Wire	
Wire Connections	
Container, Top	
Container, Bottom	
Gasket, Container Joint	

ADDITIONAL O	BSERVATIO	ONS:		

LIST OF REPAIR PARTS AND ASSEMBLIES REQUIRED FOR REPAIRS \square

COMPONENT:	REMARKS:
Mast Assy	
External-Actuator Cover	
Actuator Arm Lever	
Housing to Actuator Assy Hose	
Assy, Strbrd Starboard Starboard	
Actuator Manifold	
Starboard Actuator Assy	
Housing-Actuator Hydraulic Hse	
Assy, Port	
Housing – Actuator Hydraulic	
System, Port	
Port Actuator Manifold	
Port Actuator Assy	
Starboard/Port Hinge Arm	
Starboard Door Assy	
Door Seals	
Door Latch Rod, Starboard Door	
Port Door Assy	
Wiring Harness W16	
Platform, Equipped for Access	
Launcher Cylinder Hydraulic Hose	
Assy	
Launch Cylinder Hose Assys	
Launcher Cylinder	
Launcher Cylinder Swivel Joint	
Elevation Cylinder Hose Assys	
Elevation Cylinder Swivel Joint &	
Elbows	
Elevation Cylinder Assy	
Elevation Cylinder Manifold	
Elevation Cylinder	
Turnbuckle Connecting Rod	
Elevation Cylinder Linkage	
Adjustment	
Connecting Rod	
Pivot Pin	
Pivot Bearings	
Center Sheath	
Shield	
Launcher Platform Rail	
Travel Lock Assy	
Pivot Assy	
Bumper	
Stop Bracket, Connecting Rod	
Diacket, Connecting Rou	

LIST OF REPAIR PARTS AND ASSEMBLIES REQUIRED FOR REPAIRS $\hfill\Box$

COMPONENT:	
Mercury Switch Box Pendulum Box	
Assy	REMARKS:
Rockets Power Distribution Box	
Rocker Arm Support Arm Arm	
Sheath Port/Starboard Intermediate	_
Sheath	
Sequence Lock Manifold	
Sequence Lck Manifold Hydraul Asy	
Support Arm Tube Assys	
Elbow	
Elbow Bracket Three-Hole Bulkhead	
Tube Angle Mounting	
Launcher Housing Tube Assys	
Junction Box A	
Junction Box B	
Limit Switch	
Limit Switch Arm Bracket Wiring	
Harness W15	
Pivot Bracket	
Spring	_
Test Plugs	
Nipple	
Coupler	
Lower Seal	
Sheath	
Intermediate Housing Sheath	_
Port Housing Guard Starboard	
Housing Guard	
Forward Port Housing Guard	
Aft Port Housing Guard	
Forward Starboard Housing Guard	
Aft Starboard Housing Guard	
Port/Starboard Bar	
Swivel Elbow (Port H2)	
Tie-Down and Adapter Assy	
Tie-Down Adapter	
Tie-Down Assy Aft Wall Guard Aft	
Guard Assy Aft Port Guard Aft	
Starboard Guard Forward Guard Assy	
Cable Guide Starboard Cable Guide	
Aft Port Cable Guide Lower Engine	
Access Cover Latch Upper Eng	
Access Cover Striker Rail	
Center Channel Assy	
Aft Pallet Rail Tie-Down Bracket	
Port/Starboard Ramp	
COMPONENT:	

LIST OF REPAIR PARTS AND ASSEMBLIES REQUIRED FOR REPAIRS \square

Rear Pallet Assy	
Wear Plate	
Quick Release Pins	
Starboard Ramp Crossmember	
Ramp Wear Plates	
Aft Pallet	
Forward Pallet Assy	
Housing to Forward Pallet Hose Assy	
Capstan Hydraulic Hose Assys	
Forward Pallet Rail Tie-Down	REMARKS:
Bracket	
Quick Disconnect Coupler Fitting	
Power Distribution Box Assy	
Quick Disconnect Nipple Fitting	
200A Circuit Breaker	
2A Circuit Breaker	
10A Circuit Breaker	
200A Relay	
10A Relay	
Terminal Block Indicator Light Assy	
Toggle Switch Slave Plug Capstan	
with Hydraulic Motor Assy Capstan	
Drum Reduction Gearbox	
Reduction Gearbox Lubricating Oils	
Reduction Gearbox Oil Change	
Hydraulic Filter Change	
Capstan Hydraulic Motor	
Hydraulic Power Unit	
Manual Hydraulic Pump	
Manual Hydraulic Pump Handle	
Electric Motor/Hydraulic Pump	
Electric Motor/Hydraulic Pump	
Control Manifold	
Reservoir Assy	
Sight Glass	
Relief Valve	
Pressure Gauge	
Manual Pump Outlet Tube	_
Manual Pump Inlet Tube	
Clip Spring	
Hydraulic Pump Inlet Tube	
Hydraulic Pump Outlet Tube	
Wiring Harness W12	
Wiring Harness W13	
Wiring Harness W14	
Arm Switch	
COMPONENT:	
Control Box	

LIST OF REPAIR PARTS AND ASSEMBLIES REQUIRED FOR REPAIRS $\hfill\Box$

Contrl Bx & Mounting Brackets Assy	
Brackets	
Lamps	
Selector Knob	
Toggle Switch Guard	
Receptacles	
Receptacle Connections	
10A Relay	
Relay Connections	
Filters	
Filter Connections	
System Power Switch	
System Power Switch Connections	
Panel Light	
Panel Light Connections	
Push Switches	
Push Switch Connections	_
Rotary Switch	REMARKS:
Rotary Switch Connections	_
Launch Angle Indicator	
Circuit Board Assy	
Circuit Board Assy Connections	
Indicator Light	
Indicator Light Connections	
Raise/Lower Switch	
Raise/Lower Switch Connections	
Electric Wire	
Wire Connections	
Container, Top	
Container, Bottom	
Gasket, Container Joint	
	_

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LIST OF REPAIR PARTS AND ASSEMBLIES REQUIRED FOR REPAIRS \square

ADDITIONAL NOTES:	

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

DD FORM 1423-1, AUG 96 (EG)

Form Approved OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jafferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of tawn, or person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

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A. CONTRACT LINE I	TEM NO.	B. EXHIBIT		C. CATEGORY: TOP TM OTHER							
D. SYSTEM/ITEM Mine Cleara	nce Launcher, M	K 154	E. CONTRACT/PR		F. CONTRA	ACTOR					
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Blk 13 - Subsec ach month.	quent submissions	s shall be	10 days after th	he last business d	ay of						
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CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

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A. CONTRACT LINE I	CONTRACT LINE ITEM NO. B. EXHIBIT C. CATEGORY: TOP TM OTHER									
D. SYSTEM/ITEM			E. CONTRACT/PR			CONTRACTOR				
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17. PRICE GROUP

18. ESTIMATED

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CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved OMB No. 0704-0188

A. CONTRACT LINE	ITEM NO.	B. EXHIBIT	EXHIBIT C. CATEGORY: TDP TM		OTHE	OTHER X						
D. SYSTEM/ITEM Mine Clearance Launcher, MK 154 E. CONTRACT/PR NO. F. CONTRACTOR												
1. DATA ITEM NO.	2. TITLE OF DATA ITEM					3. SUBTITLE						
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17. PRICE GROUP 18. ESTIMATED TOTAL PRICE

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